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a sampling circuit configured to sample the electric signal output from the photodetector in synchronism with the oscillation of the pulse laser beam output from the pulse laser oscillator;

and

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a memory configured to accumulate data output from the sampling circuit.

3. (Amended) The laser scanning microscope according to claim 2, wherein the synchronous signal generating circuit has a delay circuit configured to output a trigger signal obtained by delaying the synchronous signal, and the sampling circuit starts
5 to sample the electric signal from the photodetector in synchronism with the synchronous signal delayed by the delay circuit.

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4. (Amended) The laser scanning microscope according to claim 3, further comprising a pulse generator configured to generate a pulse signal for starting oscillation and finishing the oscillation in a time period shorter than each interval at which the pulse laser beam is oscillated in synchronism with the synchronous signal delayed by the delay circuit, and wherein the sampling circuit samples the electric signal from the photodetector in response to the pulse signal generated by the pulse generator.

7. (Amended) The laser scanning microscope according to claim 1, wherein the pulse laser oscillator is a mode locked ultra fast pulse laser which excites fluorescence from the sample due to multiphoton excitation.

8. (Amended) A laser scanning microscope comprising: a pulse laser oscillator configured to oscillate a pulse laser beam to excite a sample;

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a scanning mirror configured to scan the pulse laser beam;

5 a photodetector configured to detect light from the sample and output an electric signal;

10 a laser oscillation synchronous signal generating circuit configured to receive a laser oscillation signal from the pulse laser oscillator and generate a laser oscillation synchronous signal;

a delay circuit configured to delay the laser oscillation synchronous signal output from the laser oscillation synchronous signal generating circuit, and configured to output the delayed signal as a trigger signal;

15 a sampling circuit configured to sample the electric signal output from the photodetector in synchronism with oscillation of the trigger signal output from the delay circuit; and

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a memory configured to accumulate data output by the
sampling circuit.

11. (Amended) The laser scanning microscope according to
claim 8, wherein the pulse laser oscillator is a mode locked
ultra fast pulse laser which excites fluorescence from the sample
due to multiphoton excitation.

12. (Amended) A laser scanning microscope comprising:

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a pulse laser oscillator configured to oscillate a pulse
laser beam to excite a sample;

a scanning mirror configured to scan the pulse laser beam;

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a photodetector configured to detect light from the sample
and output an electric signal;

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a laser oscillation synchronous signal generating circuit
configured to receive a laser oscillation signal from the pulse
laser oscillator and generate a laser oscillation synchronous
10 signal;

a delay circuit configured to delay the laser oscillation
synchronous signal output from the laser oscillation synchronous
signal generating circuit, and configured to output the delayed
signal as a trigger signal;

15 a pulse generator configured to generate a pulse signal in synchronism with the trigger signal output from the delay circuit;

20 a sampling circuit configured to sample the electric signal output from the photodetector in synchronism with the pulse signal output from the pulse generator; and

a memory configured to accumulate data output by the sampling circuit.

13. (Amended) The laser scanning microscope according to claim 12, wherein the pulse generator outputs the pulse signal during an output period in which an external input circuit, which is operatively electrically coupled to the microscope, provides
5 a signal to the microscope, and the sampling circuit samples, during the output period, the electric signal output from the photodetector.